

Supplementary material

Supplement 1. Sentinel-1 backscatter time series correction with and without the vegetation sine correction applied.

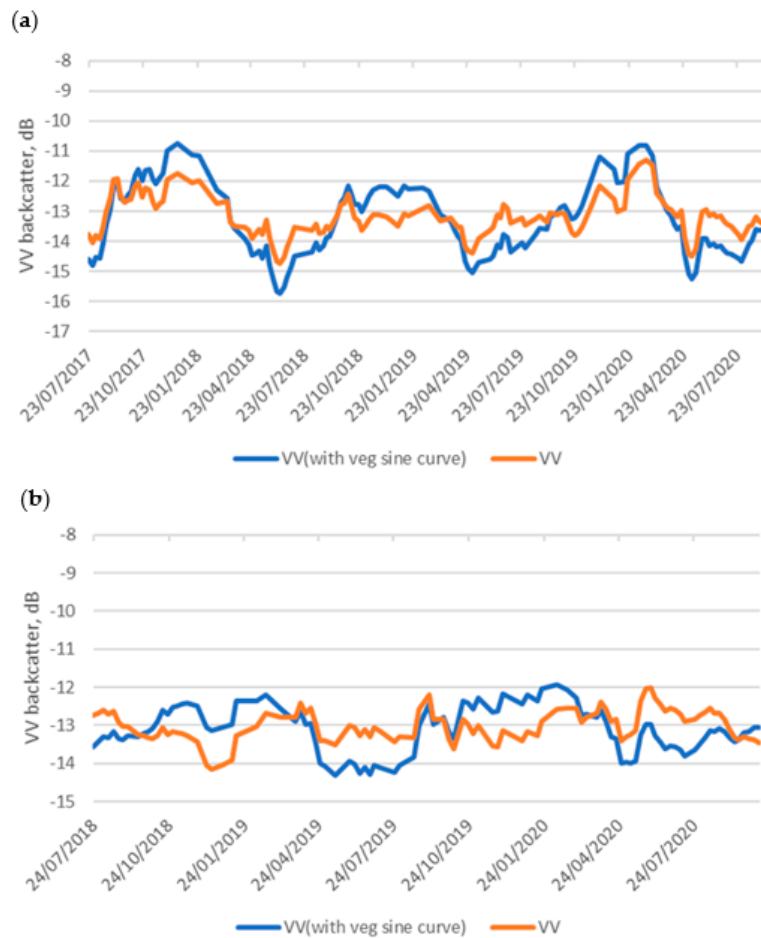


Figure 1. Sentinel-1 backscatter time series with (blue) and without (orange) the vegetation sine correction applied, illustrated for a) Talaheel Restoration (FTW) and b) the near-natural control site. Figure illustrates the difference in the backscatter time series with and without the vegetation sine correction applied. While for the felled to waste site (Figure 11a) the 1 dB vegetation sine correction gives the impression that the correction could be representing the annual vegetation change, when applied for a near-natural site, where the backscatter only changes by about 1-2 dB between the seasons (usually below 10 cm change in WTD), in other words, the correction alters the data in an inappropriate manner (Figure 11b). The vegetation curve application in this case inflates the backscatter values, implying that vegetation is expected to impact the backscatter values as much as the WTD change. Given the overall minimal vegetation change in these ecosystems, it should not be the case. Another aspect not being considered in this approach is the start and end of the growing season, which can vary year to year.